

REMARKS

Claims 1-5 and 7-13 are all the claims pending in the application. Claim 6 has been canceled without prejudice or disclaimer. Claims 2-5 and 7-13 have been withdrawn from consideration by the Examiner. Reconsideration and allowance of all the claims are respectfully requested in view of the following remarks.

Claim Rejections - 35 U.S.C. § 112

The Examiner rejected claims 1 and 6 under §112, 2nd paragraph, as indefinite. Specifically, the Examiner asserted that the terms “mesh” and “associated oil passage” are unclear. Applicants have amended the claims in a manner believed to overcome this rejection. Specifically, the terms “mesh” and “associated” have been removed.

Claim Rejections - 35 U.S.C. § 103

The Examiner rejected claims 1 and 6 under §103(a) as being unpatentable over US Patent 6,203,467 to Yamamoto et al. (hereinafter Yamamoto) in view of either US Patent 4,183,591 to Mayer (hereinafter Mayer) or US Patent 5,382,099 to Bauer et al. (hereinafter Bauer). Applicants respectfully traverse this rejection because the references fail to teach or suggest all of the elements as set forth in the claim 1.

Claim 1 sets forth a continuously variable transmission comprising: a pair of input and output disks each including a first traction surface; power rollers; displacement shafts for supporting respective ones of the power rollers; an oil passage for guiding lubricating oil to the traction surfaces of the power rollers, input disk and output disk, wherein the oil passage is disposed in one of the displacement shafts and has an injection hole; and a filter disposed on a step formed in an exit side of the oil passage, and situated near the injection hole.

Regarding transmissions, it is conceivable to arrange a filter at a suction port for a lubricant circulating system, i.e., a line filter. See the specification at page 2, line 20 - page 3, line 11. However, sometimes, the line filter is unable to remove the foreign substances fully,

leading to disadvantageous problems with the traction surfaces. See the specification at page 3, line 12 - page 4, line 17.

In the presently claimed invention, however, by disposing a filter at an injection portion (such as in a displacement shaft) for directly supplying lubricant to the traction portion, which performs power transmission by rollers, it is possible to prevent peeling of the rollers due to biting of foreign substances. See, for example, the specification at page 4, line 20 - page 5, line 17.

The Examiner relies on Yamamoto as teaching the various parts of a continuously variable transmission, including various oil passages. However, in contrast to that set forth in claim 1, Yamamoto fails to disclose an oil passage in the displacement shaft. The Examiner asserts that passages 105, 107, and 113, are oil passages. However, the oil passages 105 and nozzles 107 are disposed in the upper portion of the transmission as shown in Yamamoto's Fig. 6, and not in the displacement shafts 147. Further, the oil passages 113 are disposed in the trunnions 72, 73; they are not in the displacement shaft 147. See Yamamoto at col. 6, lines 15-24.

Further, the Examiner relies on either Mayer or Bauer as teaching a filter at an exit side of an oil passage. The Examiner's reliance on these references, is misplaced. First, neither of these references cures the above-noted deficiency in Yamamoto. Second, for example, Mayer discloses a line filter, which would have the same drawbacks as discussed above in connection with the prior art line oil filters. Mayer's filter 58, 60 is placed at the farthest point from the bearings 16. From the filter 58, 60, oil flows along passage 48, and then collects in reservoir 18 before entering the bearings 16. See, for example, col. 2, lines 41-59. After exiting the bearings, the oil is collected by pick-up tube 42, and returned back down to the bore 46 that includes filter 58, 60. See, for example, Mayer at col. 3, lines 1-24. Thus, Mayer's filter 58, 60 is of the in-line type, and is not disposed near an injection hole as is the filter set forth in claim 1.

Accordingly, for the sake of argument alone, because Yamamoto fails to teach or suggest an oil passage in a displacement shaft, and Mayer and Bauer fail to teach or suggest a filter near an injection hole, even if one of ordinary skill in the art were motivated to combine the

references as suggested by the Examiner, any such combination would still not teach or suggest all of the elements as set forth in claim 1.

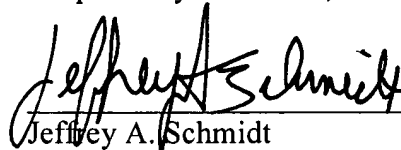
For at least the above reasons, Yamamoto taken with either Bauer or Mayer fails to render obvious Applicants' claim 1.

Conclusion

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

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